

Winter Weather Season '02

2002

Oct./Nov.

Special dates of interest:

- Nebraska Winter Weather Awareness Week – Oct 28-Nov 1.
- Iowa Winter Awareness Week – Nov. 4-8.
- Nebraska Severe Weather Awareness Week – March 31–April 4, 2003.

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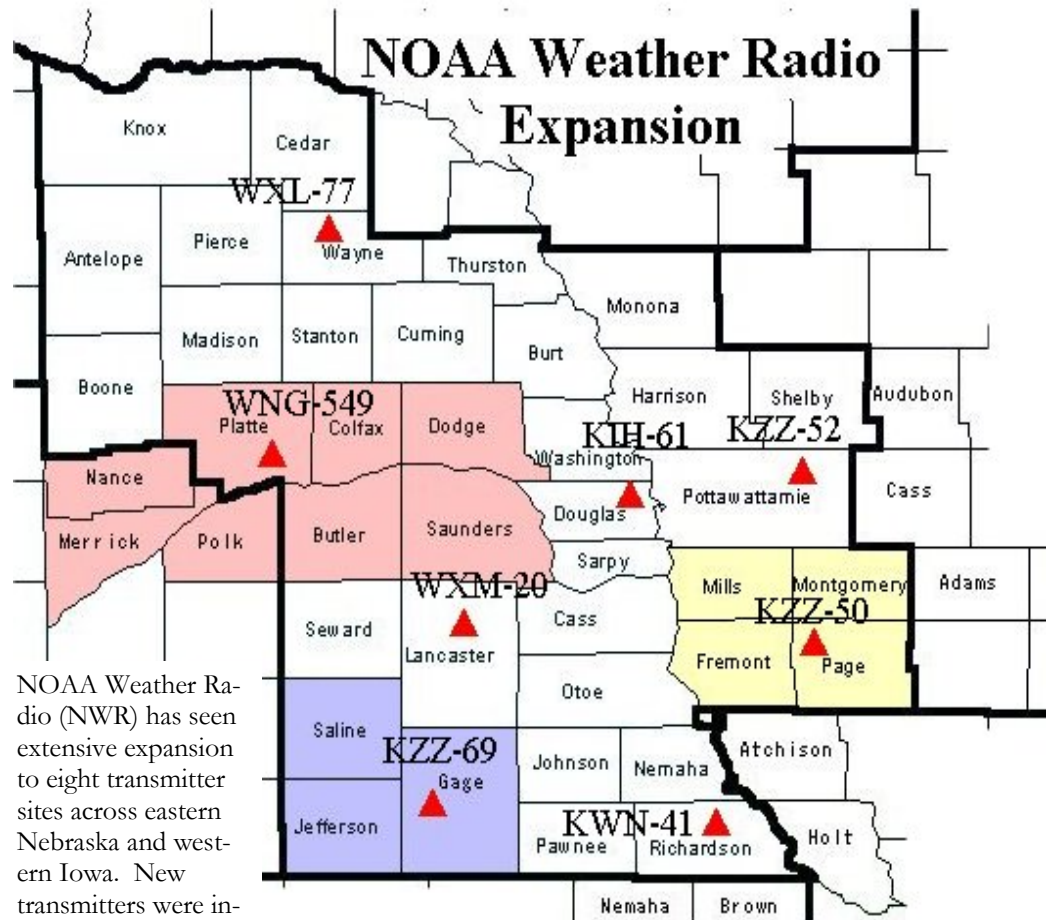
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New NOAA Weather Radio Stations



NOAA Weather Radio (NWR) has seen extensive expansion to eight transmitter sites across eastern Nebraska and western Iowa. New transmitters were installed at Beatrice, Columbus, and Shubert Nebraska, and Hancock, and Essex, Iowa. These transmitters will complement the existing NWR coverage at Norfolk, Lincoln, and Omaha.

The Beatrice transmitter operates on a frequency of

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New stations at Beatrice NE, Columbus NE, Essex IA, Hancock IA, and Shubert NE.

Winter Weather Awareness Week 2002

Governor Mike Johanns, the Nebraska Emergency Management Agency and the National Weather Service have designated the week of October 28 through November 1 Winter Weather Awareness Week in Nebraska. Special programming can be heard on NOAA Weather Radio each day. For details, check out our web site at www.crh.noaa.gov/oax/winterawa02.htm.

NWR Expansion Con't

(Continued from page 1)

162.450 MHz and has a station ID of KZZ-69. Coverage includes Saline, Jefferson, and Gage counties in southeast Nebraska.

The Columbus transmitter operates on a frequency of 162.450 MHz and has a station ID of WNG-549. Coverage includes Nance, Merrick, Platte, Polk, Colfax, Butler, Dodge, and Saunders counties in eastern Nebraska.

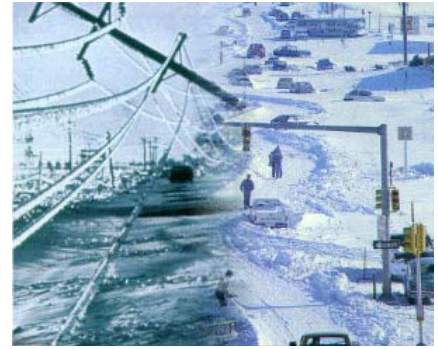
The Essex transmitter operates on a frequency of 162.550 MHz and has a station ID of KZZ-50. Coverage includes Mills, Montgomery, Fremont, and Page counties in southwest Iowa..

The Hancock transmitter operates on a frequency of 162.525 MHz and has a station ID of KZZ-52. Coverage includes Harrison, Shelby, Audubon, Pottawattamie, Cass, Mills, Montgomery, and Adams counties in Iowa..

The Shubert, Nebraska transmitter operates on a frequency of 162.500 MHz and has a station ID of KWN-41. Coverage includes Otoe, Johnson, Nemaha, Pawnee, and Richardson counties in Nebraska, Atchison and Holt counties in Missouri, and Nemaha and Brown counties in Kansas.



New NOAA
weather radio
stations Con't...



Winter Road Conditions

Nebraska has a new 511 system by phone. Call 511 from anywhere in Nebraska. When you call 5-1-1, it asks you if you want the forecast by highway or by mile marker.

Nebraska: 402-471-4533 or 511 by phone and on the web (<http://www.dor.state.ne.us/rca/>).

Iowa: 515-288-1047 (<http://www.weatherview.dot.state.ia.us/>)

South Dakota: 605-773-7515

Minnesota: 800-542-0220

Kansas: 800-585-7623

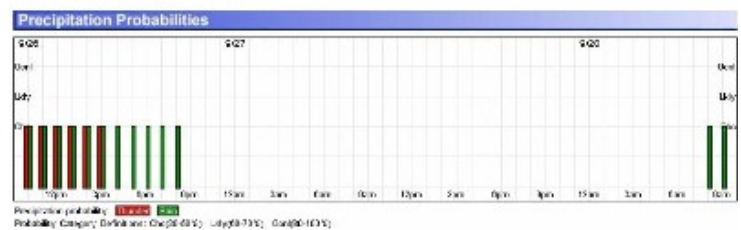
Missouri: 800-222-6400

Colorado: 303-639-1111

Digital Forecasts/Experimental Graphics

*NEW, experimental
forecasts will give you
detailed weather
information down to
the hour for your
point of interest!*

Have you tried our new interactive forecasts yet? On our web page, (<http://www.crh.noaa.gov/oax/gridfcst/MakeYourOwn.htm>), you can now click anywhere on the map and get a detailed forecast for that point. There are a variety of options; a seven day forecast, a plot of hourly temperatures, dew point temperatures, winds, relative humidity, cloud cover, and even a tabular forecast for a specific location! These forecasts are still experimental, so look for further improvements and additions.



Experimental Gridpoint forecast for 40.2-97.19
Locations within 5 miles of this gridpoint include...Fairbury NE



New Wind Chill Temperature Index



Wind Chill Chart



The new Wind Chill Temperature index will:

- Use the calculated wind speed at an average height of five feet (typical height of an adult human face) based on readings from the national standard height of 33 feet (typical height of an anemometer)
- Be based on a human face model
- Incorporate modern heat transfer theory
- Lower the calm wind threshold to 3 mph
- Use a consistent standard for skin tissue resistance
- Assume no impact from the sun (i.e. clear night sky)

		Temperature (°F)																		
		Calm	40	35	30	25	20	15	10	5	0	-5	-10	-15	-20	-25	-30	-35	-40	-45
Wind (mph)	5	36	31	25	19	13	7	1	-5	-11	-16	-22	-28	-34	-40	-46	-52	-57	-63	
	10	34	27	21	15	9	3	-4	-10	-16	-22	-28	-35	-41	-47	-53	-59	-66	-72	
	15	32	25	19	13	6	0	-7	-13	-19	-26	-32	-39	-45	-51	-58	-64	-71	-77	
	20	30	24	17	11	4	-2	-9	-15	-22	-29	-35	-42	-48	-55	-61	-68	-74	-81	
	25	29	23	16	9	3	-4	-11	-17	-24	-31	-37	-44	-51	-58	-64	-71	-78	-84	
	30	28	22	15	8	1	-5	-12	-19	-26	-33	-39	-46	-53	-60	-67	-73	-80	-87	
	35	28	21	14	7	0	-7	-14	-21	-27	-34	-41	-48	-55	-62	-69	-76	-82	-89	
	40	27	20	13	6	-1	-8	-15	-22	-29	-36	-43	-50	-57	-64	-71	-78	-84	-91	
	45	26	19	12	5	-2	-9	-16	-23	-30	-37	-44	-51	-58	-65	-72	-79	-86	-93	
	50	26	19	12	4	-3	-10	-17	-24	-31	-38	-45	-52	-60	-67	-74	-81	-88	-95	
	55	25	18	11	4	-3	-11	-18	-25	-32	-39	-46	-54	-61	-68	-75	-82	-89	-97	
	60	25	17	10	3	-4	-11	-19	-26	-33	-40	-48	-55	-62	-69	-76	-84	-91	-98	

Frostbite Times

30 minutes

10 minutes

5 minutes

Wind Chill (°F) = 35.74 + 0.6215T - 35.75(V^{0.16}) + 0.4275T(V^{0.16})

Where, T= Air Temperature (°F) V= Wind Speed (mph)

Effective 11/01/01

Winter Weather Terms

WINTER STORM WATCH

...Means conditions are favorable for hazardous winter weather in and close to the watch area. Usually issued 24 to 48 hours in advance.

BLIZZARD WARNING

...Means the following conditions are expected to prevail for a period of 3 hours or longer: A. Sustained wind speeds of 35 mph or more; and B. Considerable falling and/or blowing snow (i.e. frequently reducing visibility below 1/4 mile).

WINTER STORM WARNING

...Means hazardous winter weather elements that pose a direct threat to life or property such as heavy snow combined with strong winds and very cold wind chills are occurring, imminent, or have a high probability of occurrence.

ICE STORM WARNING

...Means damaging accumulations of ice are expected during freezing rain situations. Significant accumulations of ice pull down trees and utility lines resulting in loss of power and communication. These accumulations of ice make walking and driving extremely dangerous. Significant ice accumulations are usually 0.25 inches or greater.

HEAVY SNOW

...Term for snow expected to accumulate 6 inches or more in depth in 12 hours or 8 inches or more in depth in 24 hours.

WIND CHILL

...The Wind Chill Temperature (WCT) is the air temperature at which the heat transfer rate and skin temperature would be the same in the absence of wind. The WCT represents the temperature the body feels when it is exposed to wind and cold. The threshold for dangerous WCT starts at -18 degrees F, where frostbite can occur on exposed flesh within 30 min. The Omaha office will issue an **ADVISORY** for WCT -20 to -29/**WARNING** for WCT -30 or more both w/10 mph wind.

Winter Weather Safety Tips

IN YOUR HOME

1. Check your battery powered radio, emergency cooking facilities, and have emergency lights such as flashlights and lanterns. Have spare batteries and fuel on hand.
2. Be sure of an adequate heating fuel supply to last through the storm.
3. Have an adequate supply of groceries to last through the storm. Keep some foods on hand that do not require cooking or refrigeration in case of power failure.
4. Have an adequate supply of medicines for those in the family taking life sustaining or other important medication.
5. Be cautious of fire from overheating of stoves, fireplaces, heaters, or furnaces. Fire departments may have

(Continued on page 4)

Winter Safety Tips Con't.



“Beware of overexertion. Manually shoveling may lead to heart attack.”

(Continued from page 3)

trouble responding.

6. Avoid overexertion. Take your time shoveling snow and doing other outdoor activities. Heart attack is a major cause of death during and after winter storms.

IN YOUR VEHICLES

1. Get vehicles winterized.
2. Be equipped for the worst! Carry a winter storm car kit. Suggested items for a winter storm car kit include: Blankets or sleeping bags, matches and candles, one gallon can with cover, facial tissue, paper towels, high calorie non-perishable food, extra clothing, first aid kit, knife, shovel, sack of sand, flashlight, signal light, windshield brush and scraper, booster cables, tow chains, and cellular phone.

WINTER TRAVEL

1. Avoid travel if at all possible during severe winter weather conditions. If you must travel, take a winter storm car kit, use major roads, and make sure someone knows approximately where you are or ought to be, keep your gas tank full, and keep in touch with the latest weather forecasts, be aware of reduced hours of daylight in winter.
2. Remember to use good judgment in determining whether to start or continue a trip.
3. If you become stuck in a winter storm or stalled in a blizzard...

* Beware of overexertion and overexposure. Do not panic. Work slowly. Manually pushing vehicles or shoveling heavy drifts in biting winds and bitter cold may lead to heart attack.

“Keep up with the latest forecast and be prepared to alter your travel plans when weather conditions deteriorate.”

Additional Tips:

* Stay in your vehicle. Do not attempt to walk and find help. disorientation occurs quickly in blowing and drifting snow. Becoming lost in open country during a blizzard means almost death. Vehicles provide protection from the weather and are quite likely to be observed by highway maintenance crews or rescue people.

* Beware of the silent killers of carbon monoxide poisoning and oxygen starvation. Freezing wet snow and wind driven snow can effectively seal a vehicle. Run the motor and heater sparingly and keep a down wind window open for some ventilation.

* Exercise from time to time to stimulate circulation, warm extremities, and relieve tense muscles. Occasionally clapping of the hands and vigorous moving of arms and legs is recommended.

* Turn on the dome light at night to make the vehicle visible to work or rescue crews. Also, tie a colored cloth to the radio antenna to aid daytime vehicle visibility.

* Keep Watch. Do not let all occupants of the vehicle sleep at once.



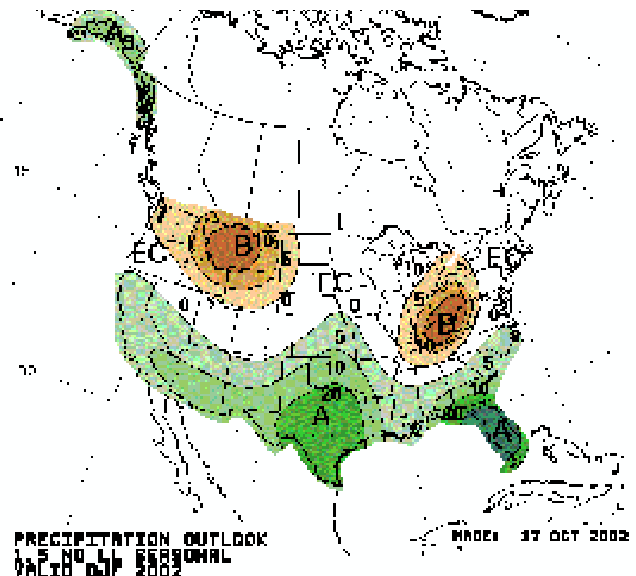
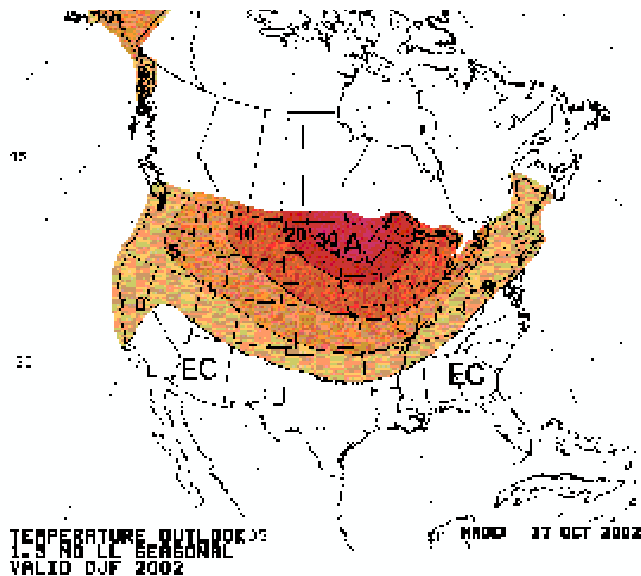
Get your vehicle ready for winter well before the cold weather strikes.

Winter Weather Outlook

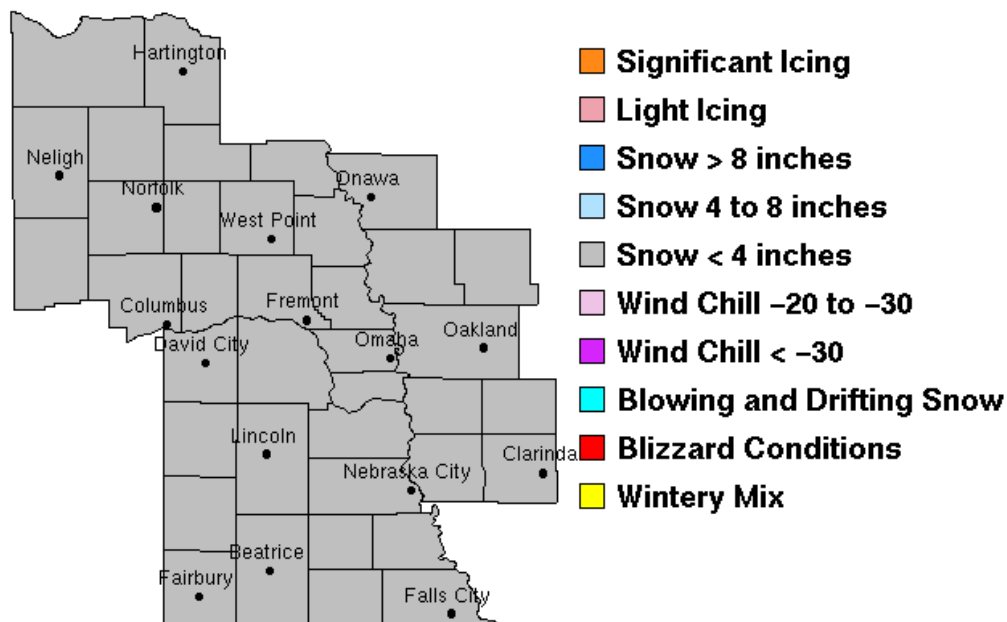
The winter weather outlook from December through February updated on October 17th, calls for above normal temperatures for all of eastern Nebraska and western Iowa. Precipitation is expected to be near normal for most of the area, however, southeast Nebraska and southwest Iowa are expected to see slightly above normal precipitation during the period.

“The latest 90-day outlook.”

For the latest monthly and seasonal outlooks, take a look at: <http://www.cpc.ncep.noaa.gov/products/forecasts/>
A discussion of the 90-day outlook can be found at: <http://www.cpc.ncep.noaa.gov/products/predictions/90day/fixus05.html>



Hazardous Weather Outlook (HWO)



The Hazardous Weather Outlook (HWO) is intended to provide the public, media, spotters, and emergency managers with detailed information of the potential for severe weather, winter weather, flooding, high winds, extreme cold, excessive heat, and fire weather for the next day. A second section will briefly discuss the potential weather hazards from days two through seven. Text and graphical products are issued twice a day from October 1-March 31; usually by 6 A.M. and 6 P.M. The hazardous weather outlook is broadcast on all NOAA weather radio transmitters. The HWO can also be found on EMWIN and our National Weather Service web page at <http://www.crh.noaa.gov/oax/outlook.shtml>.

WEATHER WATCHERS



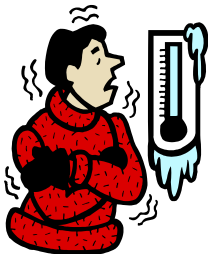
Volunteer COOP Observers report temperatures, rainfall, snowfall, and river readings. Observers may be called upon during severe weather to report large hail, damaging winds, and tornadoes.

The following Cooperative Weather Observers (COOP) received awards for their years of service from the National Weather Service at Omaha/Valley. Each day, they record their weather observations, and send it on for national collection via ROSA phone or via computer (WXCODER program). These dedicated people are part of a national network that is 11,000 strong. The title of this section "Weather Watchers" was submitted by COOP observer Pat Gross of Wayne.



Marvin Anderson
Virginia, NE
30 Year Award

Randy Baumert
Howells, NE
10 Year Award



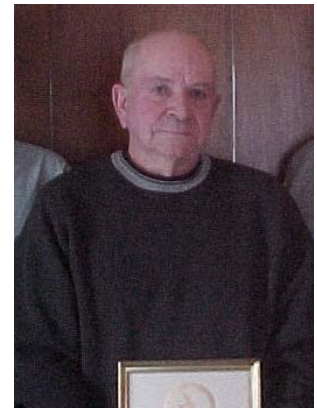
COOP Observers brave the low wind chills to gather their weather data...



Bob and Barbara Brehm
Raymond, NE
15 Year Award



Kenneth Kauffold
Dodge, NE
40 Year Award



Raymond Crosier
Oakdale, NE
45 Year Award



Randy Lamprecht
Hornick, IA
20 Year Award



Daryl Obermeyer
Auburn, NE
25 Year Award



Jim and Eleanor Pacas
Schuyler, NE
25 Year Award

Weather Watchers Con't



Bill Sand
Friend, NE
40 Year Award



Bob Schmidt
Platte Center, NE
10 Year Award



Wayne Switzer
Clearwater, NE
35 Year Award



...cold temperatures
and strong winds...



Neal Van Winkle
Plattsmouth, NE
15 Year Award



Lloyd and Betty Vrtiska
Table Rock, NE
40 Year Award



Mable Zink
Sterling, NE
45 Year Award

*'Volunteer COOP
weather observers
received awards for
10 to 45 years of
service!'*

COOP Observer Tips

Winter Observation Techniques:

Winter is just around the corner and some parts of Nebraska and Iowa have already seen their first flakes of the season. To refresh your memory on proper snowfall measurement techniques; **new snow/sleet** is the amount of snow and/or sleet that has fallen since your last observation or since the snow and/or sleet began. Sleet is a term used for frozen raindrops that bounce on impact with the ground. Recommended equipment: Snowboard and Ruler or yard stick

It is recommended that the snowboard be a flat piece of plywood as close to a square as possible and at least 144 square inches (1 square foot). It is probably best to have a 2 or 3-foot square (or nearly square) snowboard. A larger snowboard is easier to find after several inches of snow. A wooden deck away from buildings and trees is a suitable substitute.



Snow boots will come in handy this year.

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**National Weather Service –
Omaha/Valley, NE**

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P.O. BOX 719
Valley, Nebraska 68064-0719

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Fax: 402 359-5368
Email: W-OAX.Webmaster@noaa.gov

We're on the Web!
www.crh.noaa.gov/oax/

*NOAA Weather Radio
Saves Lives*



COOP Observer Tips Con't.

(Continued from page 7)

The snowboard should be placed in a grassy area where snow accumulates uniformly. Do not place the snowboard under tree branches or wires or near buildings, homes, automobiles, roads, driveways or sidewalks. If you live in a wooded area, try to locate your snowboard in an exposed clearing or in an area where there are less trees. Do not place the snowboard where snow from a neighbor's snow blower might land. The snowboard does not have to be on the ground all winter, just when snow is expected.

When you make an observation, use a ruler or yard stick and measure the depth of the snow and/or sleet on the snowboard to the nearest tenth of an inch at several places. The average depth is the new snow and/or sleet since the last observation was reported. When you are done making measurements, wipe all the snow and/or sleet off the snowboard.

Remember, snowfall is reported to the nearest tenth of an inch and snow depth is reported to the nearest inch.

It is fairly easy to measure new snow if the wind is light and there is no blowing and drifting snow. When there is a lot of wind causing blowing and drifting, there may be no snow on your snowboard. In this case, or if you feel the amount on the snowboard is not representative of how much snow fell, make a good guess on how much new snow fell.

Observers with Fischer Porter Rain Gauges:

Please do not place the tape label over the punched holes. Also, do not use the label to seal off the roll of tape before you send it to us. Instead, place that label at the end of the long tail that is left at the end of the tape. Be sure to leave about 18 inches of punch-free tape at the beginning and end of the tape and don't forget to draw a line on the tape above the punch block at the start AND at the end of the tape.

Monthly Forms (B-91): When completing this form, please remember to put zeroes in the precipitation column each day when no precipitation occurs. DO NOT leave it blank when you do not have any precipitation. The National Climatic Data Center, where your data is sent, requires that the entire precipitation column is filled in, zeroes and all. The B-91 forms must be received at the National Weather Service Office by the 10th of the month. This allows enough time for our staff to check the data and send the data off to the National Climatic Data Center (NCDC) to be archived and published. If your data is not received by NCDC in time, your information will not be published.